

2006

Dynamics of Portal Email Switching: Attractive Alternatives and Switching Costs

Gimun Kim

Yonsei University, gmkim@yonsei.ac.kr

Bongsik Shin

San Diego State University, bshin@mail.sdsu.edu

Ho Geun Lee

Yonsei University, h.lee@yonsei.ac.kr

Follow this and additional works at: <http://aisel.aisnet.org/pacis2006>

Recommended Citation

Kim, Gimun; Shin, Bongsik; and Lee, Ho Geun, "Dynamics of Portal Email Switching: Attractive Alternatives and Switching Costs" (2006). *PACIS 2006 Proceedings*. 14.

<http://aisel.aisnet.org/pacis2006/14>

This material is brought to you by the Pacific Asia Conference on Information Systems (PACIS) at AIS Electronic Library (AISeL). It has been accepted for inclusion in PACIS 2006 Proceedings by an authorized administrator of AIS Electronic Library (AISeL). For more information, please contact elibrary@aisnet.org.

Dynamics of Portal Email Switching: Attractive Alternatives and Switching Costs

Gimun Kim

School of Business, Yonsei University, Korea, gmkim@yonsei.ac.kr

Bongsik Shin

Information and Decision Systems, San Diego State University, USA,
bshin@mail.sdsu.edu

Ho Geun Lee

School of Business, Yonsei University, Korea, h.lee@yonsei.ac.kr

Abstract

Internet portals have been using the email service to attract new members and to retain existing customers. This research aims to enhance the understanding of mechanisms associated to users' intention for email switching (IES). We have employed customer's satisfaction on email service, attractive alternatives, and switching cost to explain the dynamics of IES. Customer's satisfaction is measured in terms of storage capacity, spam blocking, interface design, and system stability variables. Setup cost and continuity cost are chosen as switching costs. By conducting a survey with 1,408 responses, we have found the vital importance of user satisfaction for service continuation. Variables of attractive alternatives and continuity cost demonstrated its strong association with IES. We have also found that attractive alternatives moderates the relationship of customers' satisfaction and IES, but the moderating effects of switching cost are weak. Our investigation indicates that the findings of extant studies on the dynamics of service switching or re-purchase mostly apply to the email service as well.

Keywords: email service, service switch, service conversion, user satisfaction, switching cost

1. Introduction

Recent announcements by major portals to increase capacity for the email account demonstrate the strategic role of the application in boosting site traffic and in augmenting business value. For instance, a recent announcement by Google, a leading provider of a web search engine, of a new email service (G-mail) stirred a sensation with its unprecedented 1GB space for each user. Google's initiation was quickly followed by the incumbent leaders in the Internet portal business including Yahoo. It is, though, uncertain how email users will react to the announcement of expanded storage capacity because there are visible and invisible costs incurred from service switching (Jones *et al.* 2002). The conversion costs a person in the form of new registration to a portal site, email archiving and importing, the configuration of new settings, and the redistribution of the new account. The conversion also carries the risk of losing existing contacts.

This research aims to enhance the understanding of mechanisms associated to users' intention for email switching. There has been ample research on customer's product/service switching behavior in on-line or off-line setup (i.e., Crosby and Stephens 1987; Jones 1998 ; Rust *et al.* 1996; Singh 1991). There has been, however, no study that examined motivating forces in switching email service providers, mostly Internet portals. Through this research, we aim to enhance understanding key factors that may directly and indirectly affect people's *intentions to switch email services* (hereafter *IES*). For this, key variables pertaining to *customer's satisfaction on email service, attractive alternatives, and switching cost* are identified and applied to explain the dynamics of *IES*.

2. Related Studies

Much research on service switching has been conducted in both on-line and off-line setups. Many, undertaken in the off-line space, attempted to understand the association between customer satisfactions for service and the intent for service re-purchase (i.e., Crosby and Stephens 1987; Oliver 1980; Rust and Zahorik 1993). Similar studies have been carried out for on-line services as well. Here, customer satisfaction was measured in various dimensions including: information quality (i.e., consistency, accuracy, timeliness, and ease of understanding), quality of user interface (i.e., feedback mechanism, learning effect, and system performance), perceived usefulness and ease of use, and perceived quality of an on-line store (i.e., price competitiveness, brand, security, product differentiation, and certainly of product quality) (Chin *et al.* 1998; Huang *et al.* 1999; Yoo and Donthu 2001).

Many studies examined how user satisfaction variables affected customers' intention for switching a paid service or their actual switching behavior. The email service offered by Internet portals is different from other paid services because, in most cases, portals do not generate revenue directly from email services. They generally offer them to augment network externalities and to boost customer loyalty and lock-in, which could translate into revenue generation in other business activities. Besides, there are also elements distinct to the email application, which may significantly affect customer satisfaction for an email service. These include spam blocking, privacy policy, handling of subscriber information, and storage capacity. With its uniqueness as a service and as a utility-type application, better understanding on the dynamics of email service switching is warranted.

Besides the elements of service satisfaction, customers' intention for service switching may also be influenced by psychological and non-psychological barriers they have to deal with. Such barriers may be largely associated with the availability of attractive alternatives and perceived switching cost. Several studies indicated that they could not only have direct influence on customers' service re-purchase but also moderate the dynamics between customers' satisfaction for a service and their re-purchase decision (Anderson *et al.* 1994; Gwinner 1998; Jones *et al.* 2002).

Attractive alternatives represent customer perceptions on the quality of alternative services (Frazier 1983; Jones 1998; Ping 1993). Low attraction of alternatives

discourages customers from changing their existing services (Sharma and Patterson 2000; Ping 1993). Rusbult (1983) suggested that the intention for service re-purchase is the function of trade-offs between the attractiveness of existing relationship and that of alternatives. In case of alternative email services, the perception of their attractiveness may be shaped by various information channels including commercial, hearsay, word of mouth, and media. The service migration occurs not only at the individual level but also at the corporate level. When retailers find appealing wholesalers, they will switch (Ping 1993).

As another type of the obstacle, switching cost represents economic, psychological, and emotional sacrifice that may take place before, during, and after the service conversion (Jones *et al.* 2002). Jones (1998) classified the switching cost in terms of continuity costs, contractual costs, searching costs, learning costs, setup costs, and sunk costs. Continuity costs represent the opportunity cost resulting from the loss of service continuity. Contractual costs are the perceptions of lost benefits (i.e., discounts) from existing service by switching to a new one. Learning costs are time and effort spent for information acquisition, exchange and evaluation of alternative services. Setup costs are mental and financial efforts necessary to sign up a new service and to set up customization for the first time. Sunk costs represent non-recoverable time and efforts already spent on existing relationship. Sunk costs are “economically irrelevant but psychologically important prior investments in the exchange relationship (Jones *et al.* 2002).” They constitute a hurdle that keeps a customer from replacing existing service.

3. Research Hypotheses

From the theoretical review of existing literature, a research model was proposed to predict the dynamics of *IES* in terms of three endogenous constructs: *customer satisfaction on email service*, *availability of attractive alternatives*, and *perceived switching cost* (See Figure 1). According to the model, the three endogenous constructs had a direct impact on customers' *IES*. In addition, *attractive alternatives* and *switching cost* were expected to moderate the strength of relationship between customer satisfaction and *IES*.

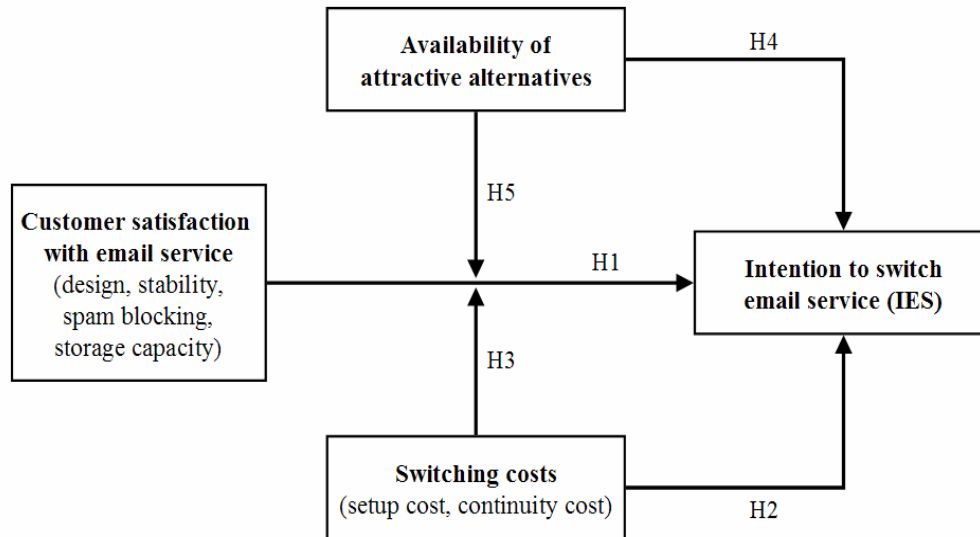


Figure 1: Research Model

As for the satisfaction construct, customers' satisfaction with *storage capacity*, with *spam blocking*, with *interface design*, and with *system stability* were chosen as the variables that could significantly affect customers' *IES*. Storage capacity and spam blocking are variables unique to the email application, but can play a pivotal role in user choice of the email service (Weber 2004). Meanwhile, interface design and system stability are generally accepted as the critical success factors of information systems and web stores (Rai *et al.* 2002; DeLone and McLean 1992). Customer satisfaction on the system features, therefore, may have a significant impact on *IES* as well.

Among the types of switching cost (Jones 1998), we chose *setup cost* and *continuity cost* as we anticipated their considerable presence during the migration of email accounts. Setup cost includes such activities as the registration of personal information, detailing user profile (i.e., preferences), and defining system configuration (i.e., defining email import source). Meanwhile, continuity cost of an email account represents the creation of new address list, distribution and notification of email address change, and potential disruptions in networking and communications.

The relationship between customers' satisfaction for a service and their intention for its re-purchase has been frequently investigated. Bolton's (1998) study based on cellular service providers indicated positive association between customer satisfaction and repeated service usage. The study conducted by Bearden and Teel (1983) on drug and automobile maintenance services produced identical outcomes. Similar empirical validations also confirmed that customer retention is the function of the customers' satisfaction with services (i.e., Crosby and Stephens 1987; Fornell 1992; Szymanski and Henard 2001). Accordingly, we extend the study results to hypothesize the relationship between user satisfaction for an email service and *IES*:

H1: The customer's email satisfaction is negatively related to the person's intention to switch the service.

Among many general features that may affect customer satisfaction on the email service, we pay particular attention to two dimensions: web site design and system stability. The design of web site may be an important criterion that affects email users' service satisfaction. An email site should be designed to offer convenient navigation, ease to use, and inviting content organization (Yoo and Donthu 2001). Also, given that email reached its utility status, lack of system stability and ensuing performance degradation can cause major inconvenience to email users (Yoo and Donthu 2001).

Asides from the general quality features, there are application specific factors that may make a particular email service appealing. Spam blocking capability and storage capacity are referred frequently. Email users waste time and efforts to remove unwanted spam mails. Those with sexual contents or embedded viruses stir emotional distress and disgust to many users. Many times, legitimate emails become the victim of misidentification. Naturally, an email service that can effectively block spam mails without disrupting legitimate correspondence should attract much attention from potential users. Storage capacity is also an important issue for the email service. This feature could especially significant because more traditional form of correspondence is done via electronic messages (Shin *et al.* 1999) and also messages themselves are getting bulkier because of the multimedia formatting and attachment. The announcements from major Internet portals including Google and Yahoo bespeak the importance of expanded storage in attracting and retaining site traffic. Accordingly, storage capacity may be a single most critical element that directly or indirectly affects *IES*. We, therefore, hypothesize that:

H1a: The customer's satisfaction on the email storage capacity is negatively associated to the person's intention to switch the service.

H1b: The customer's satisfaction on the email spam blocking is negatively associated to the person's intention to switch the service.

H1c: The customer's satisfaction on the email interface design is negatively associated to the person's intention to switch the service.

H1d: The customer's satisfaction on the email system stability is negatively associated to the person's intention to switch the service.

With the increase in switching cost, a customer's willingness to change the service provider should reduce. Many existing studies empirically confirmed the intuitively negative relationship between the conversion cost (both material and mental cost) and customers' choice for service switching (i.e., Anderson et al. 1994; Anderson and Sullivan 1993; Fornell 1992; Jones *et al.* 2002). By extending the study results to the email service, we hypothesize that

H2: The cost a customer recognizes from switching current email service is negatively associated to the person's intention to change it.

Especially, we expect that email users are keen on initial setup and continuity cost resulting from the switching of email accounts. Setup cost in email service includes such activities as the evaluation of service providers, registration of personal information,

detailing user profile (i.e., preferences), defining system configuration (i.e., defining email import source), and necessary customization of new email account. Continuity cost include such items as the creation of new address list, email archiving and importing, distribution and notification of email address change, and potential disruptions or delay in communication. Accordingly, we hypothesize that

H2a: The setup cost a customer perceives from the email service is negatively associated to the person's intention to switch current service.

H2b: The continuity cost a customer perceives from the email service is negatively associated to the person's intention to switch current service.

Porter (1980) suggested that even unsatisfied customers stay with existing service providers because of high switching cost. This argument implies that conversion cost may redefine the association strength between customer satisfaction and *IES*. From a slightly different angle, a person's *IES* may be understood in terms of dynamics between switching cost and subsequent benefits. Jones *et al.* (2002) suggested that customer defection does not take place when the sacrifice is expected higher than benefits realized as a result of service migration. They concluded that such moderating effect of switching cost was especially strong when customer satisfaction toward a service was low. If we extend this to the email service, reasoning becomes possible that email users may have higher *IES* when the switching cost is deemed lower than ensuing benefits. We, therefore, propose a research hypothesis:

H3: Switching cost moderates the association strength between a customer's satisfaction for current email service and the person's switching intention to a new one.

Availability of attractive alternatives could be the major motivating force for service switching. Low attractiveness of alternatives constitutes a major barrier that keeps customers from defecting current service (Sharma and Patterson 2000). Similarly, based on the data from banking and hairstyle service industries, Jones *et al.* (2002) showed the link between the availability of alternative choices and the intention for service migration. By extending the theoretical and empirical studies to the reasoning of email usage, we hypothesize that:

H4: The attractiveness a customer perceives from alternative email services is positively associated to the person's intention to change current service.

Even disgruntled customers will not switch service providers when there are no attractive alternatives (Mittal 1998). Meanwhile, even satisfied customers may change services when they see more opportunities and benefits from alternatives. This appears to be true for the societal relationships among human-beings as well. For instance, Tihaut and Kelly (1959) argued that, if there are no appealing alternatives, people tend to stick to existing, unhappy relationships (i.e., marriage). Such dynamics in the social and business

relationship may be extended to those of on-line email services. Here, dissatisfaction with existing email service may trigger heightened interest in service switching. But the interest should be moderated when the reality sets in with regard to the availability of appealing alternatives. Also, even satisfied customers may consider switching to a new email service if they find values from alternatives (Jones et al. 2002). From the discussion, we hypothesize that:

H5: Attractiveness of alternative email services moderates the association strength between a customer's satisfaction for the current service and the person's intention to change into a new one.

4. Research Results

4.1 Survey Design

A survey was designed to validate the proposed hypotheses. The structure of the survey is summarized in Table 1 in terms of studied dimensions and constructs, the number of indicator items for each construct, and the reference source of question items. Emphasis was placed on deriving question items from existing works to improve their validity and reliability. The authors developed items for *spam blocking* and *storage capacity*. Total 27 question items were included to measure both independent and dependent variables. Responses were measured in the 7-point scale ranging from 1 (completely disagree) to 7 (completely agree).

	Variables	Indicators	References
Customer Satisfaction	Design	4	Yoo and Donthu (2001)
	Stability	4	
Switching Cost	Spam	4	NA
	Storage	3	
Attractive Alternatives	Setup	3	Jones (2000, 2002)
	Continuity	3	
Switching Intention		3	Jones (2000)
		3	Jones (200)

Table 1: Summary of Studied Construct

The survey instrument was distributed, and 1,430 responses were initially returned. After eliminating responses with many unanswered items, 1,408 effective samples were used for the analysis. Distribution of the respondents showed a good gender balance in which male and female groups account 54 and 46 percents respectively. The age group in their 20s (51.7%) and the vocation group of business employee (45.4%) were the modes of the sample.

In the first, the validity and reliability of constructs were tested through convergence and discrimination among their indicator items. For this, factors were identified through the

VARIXAM rotation. Chronbach's alpha values were used to measure the reliability of factor structure in which .6 are in general considered as a threshold value for determining factor reliability. The result of exploratory factor analysis indicated highly reliable convergence among related question items and discrimination between different factor items. The smallest factor loading was .716 and most indicators had loadings of larger than .800, indicating a highly stable loading structure. Also, Chronbach's alpha values ranging from .78 to .96 confirmed the high reliability of identified factors. The average value of indicators of a construct was, therefore, used as the observation point.

4.2 Hypotheses Testing

Proposed hypotheses were validated separately into two groups. First, hypotheses 1 (including 1a,1b,1c, and 1d), 2 (including 2a and 2b), and 4 that hypothesized the associative relationship between independent and dependent constructs were tested with an ordinary multiple regression model. Then, the moderating effects of switching cost (hypothesis 3) and attractive alternatives (hypothesis 5) were tested through the hierarchical regression analysis that takes advantage of Type 1 sum of squares (conditional sum of squares). The statistical comparison was conducted separately for each moderator (setup cost, continuity cost, and attractive alternatives). Ninety five percent of confidence level was used as the threshold value for hypothesis validation.

The regression analysis in Table 2 indicated that, except the design variable, customer satisfaction for system stability, storage capacity, and spam blocking were all highly significant in affecting *IES*. Standardized coefficients indicated that, among the satisfaction variables, storage capacity had the strongest association with the dependent variable. As for the variables of switching cost, continuity cost significantly deterred *IES*, but the effect of setup cost was not substantial. In the meantime, the attractive alternatives variable was shown to bear the most powerful influence on shaping *IES*.

The coefficients clearly indicated that satisfaction with email service and switching costs are, in general, negatively associated to *IES*. The availability of attractive alternatives reinforced users' *IES*. When the strengths of main effects are compared based on the standardized coefficients, *attractive alternatives* showed the highest influence, followed by *storage capacity*, *continuity cost*, *system stability*, and *spam blocking*.

Hyp.	Variables	Stan. Coef.	t-value	Sig.	
H1	Satisfaction on the email service	Design	-0.038	-1.290	0.197
		System stability	-0.114	-3.723	0.000*
		Spam blocking	-0.091	-3.500	0.000*
		Storage capacity	-0.189	-7.417	0.000*
H2	Switch costs	Setup cost	-0.010	-0.409	0.682
		Continuity cost	-0.130	-5.131	0.000*
H4	Attractive alternatives	0.303	12.692	0.000*	

*: p < 0.05

Table 2: Coefficients of Main Effects

A set of regressions analysis were conducted to test the role of *switching cost* and *attractive alternatives* in moderating the association strength between the satisfaction variables and *IES*. Conventional testing of moderating effects requires a three-step hierarchical analysis in which the independent variable, the moderator variable, and the multiplicative cross-product term are entered in sequence (Cohen and Cohen 1983). Carte and Russell (2003) called for caution when measuring the moderating effects in MIS research. The moderation effect exists when there is a significant increase in R^2 in the hierarchical moderated multiple regression. We adopted this procedure for each moderator (i.e., Two sets of analysis were conducted).

		Moderator: Attractive alternatives(AA)			
Category	Variables	Reduced model		Full model	
		Beta	Sig.	Beta	Sig.
Satisfaction	Constant	3.223	0.000*	3.220	0.000*
	Design	-0.057	0.078	-0.070	0.030*
	Stability	-0.124	0.000*	-0.109	0.001*
	Spam	-0.069	0.000*	-0.068	0.000*
	Capacity	-0.128	0.000*	-0.127	0.000*
	AA	0.334	0.000*	0.338	0.000*
Satisfaction*	Design*AA			0.032	0.231
AA	Stability*AA			-0.060	0.032*
	Spam*AA			-0.024	0.125
	Capacity*AA			-0.027	0.082
R-Square (Adj. R-Square)		0.201(0.198)		0.212(0.207)	
F-value (df)		70.571(5)		41.852 (9)	
Change of F (P-value)		4.957 (P=0.001*)			

Table 3 : A Hierarchical Regression Model (Attractive alternatives as the moderator)

		Moderator: Switching Costs			
Category	Variables	Reduced model		Full model	
		Beta	Sig.	Beta	Sig.
Satisfaction	Constant	3.223	0.000*	3.231	0.000*
	Design	-0.009	0.790	-0.010	0.767
	Stability	-0.114	0.000*	-0.115	0.001*
	Spam	-0.064	0.000*	-0.058	0.004*

	Capacity	-0.147	0.000*	-0.150	0.000*
Switching	Setup	-0.038	0.100	-0.039	0.096
Cost	Continuity	-0.108	0.000*	-0.111	0.000
Satisfaction*	Design*Setup			-0.001	0.975
Switching Cost	Stability* Setup			-0.009	0.683
	Spam* Setup			-0.005	0.730
	Capacity* Setup			-0.002	0.902
	Design*Cont			0.000	0.988
	Stability* Cont			-0.013	0.603
	Spam* Cont			-0.027	0.097
	Capacity* Cont			0.021	0.157
R-Square (Adj. R-Square)		0.129(0.125)		0.134(0.125)	
F-value (df)		34.510(6)		15.345(14)	
Change of F (P-value)			0.975 (P=0.454)		

Table 4 : A Hierarchical Regression Model (Switching cost as the moderator)

The moderating effect of *switching cost* and *attractive alternatives* were tested through the increase of R^2 and associated F value. Because of the many interaction terms (8 “satisfaction by switching cost” and 4 “satisfaction by attractive alternatives”), the statistical significance was measured by comparing the main effect model with the full model that included all interaction terms of either *switching cost* or *attractive alternatives*. Results indicated that the intervening role of *attractive alternatives* was significant (F=4.957, p=0.001 in Table 3, thus $\Delta R^2=0$ is rejected), but that of *switching cost* was not (F=0.975, p=0.454 in Table 4).

6. Conclusions

We empirically tested the direct influence as well as moderating capacity of selected variables on *IES*. In general, it was shown that *satisfaction for service quality*, *switching costs*, and *attractive alternatives* all had a significant bearing on people's *IES*. As for service satisfaction, all (*stability*, *spam blocking*, and *storage capacity*) except the *design* variable were significant indicators of *IES*. Among the three factors, the influence of *storage capacity* was especially striking. This becomes an indication that email users will react sensitively to the announcement of storage boost. This may also mean that Internet portals' recent announcement of large storage quota is an adequate strategy to add more sign-ups, especially for a starter such as Google. It also means that incumbents such as Yahoo! may use the boost in storage capacity to fend off emerging competition and to retain current customers.

Attractive alternatives demonstrated its strong association with *IES*, thus confirming its vital role in service switching (Sharma and Patterson 2000). As for the switching cost, *continuity cost* displayed a convincing impact on *IES*, but the effect of *setup cost* was not

statistically meaningful. Overall, analysis results appear to demonstrate that, in the email business, the availability of *attractive alternatives* has much bigger implications on market competition than the binding perception of *switching cost* for existing services. Email users felt that, overall, the switching cost was not substantial enough to deter them from the change of email accounts. In the meantime, this also implies that people will not change existing services if available alternatives are not attractive enough and do not differentiate much from the current service. This may mean that the lack of attractive alternatives may keep them stay even when they are not quite satisfied with current email services (Porter 1980; Sharma and Patterson 2000).

Moderating effects of *attractive alternatives* in the relationship between customers' satisfaction and IES were significant. However, those of the *switching cost* on service satisfaction were weak. *Attractive alternatives* revealed a stronger potential than *switching cost* in intervening the influence of customer satisfactions on *IES*. None of the interaction terms between the variables of *service satisfaction* and of *switching cost* were significant. There was, however, a statistical significance for the interaction between *system stability* and *attractive alternatives* variables. It implies that when email users are not satisfied with the stability of current service, availability of viable alternatives can further boost their *IES*.

Unlike extant studies that mostly examined the re-purchase behavior of a service in on-line or off-line setup, this study has focused on the email service that is mostly offered free-of-charge by Internet portals to attract traffic. With the absence of financial transactions in most email services, the binding force between service providers and service users can be rather weak. This may trigger dynamics of service usage considerably different from the business-customer relationship based on financial transactions for using services. Despite the reasoning, the empirical study indicated that the results of prior works on people's service switching or re-purchase behavior mostly apply to the email service as well.

There are limitations of this study, which opens up opportunities for further investigation. First, the focus of this research is to understand the intention of email users in switching email services. It is, though, uncertain on the strength of association between switching intention and actual conversion. Empirical studies on actual conversion behavior can be conducted to solidify the subject research. We also believe in the potential of study that examines how email users' switching behavior translates into overall revenue or profit changes at a portal business. Finally, survey data were gathered in Korea by an on-line company and therefore the analysis results may subject to cultural bias (Hofstede 1980). This warrants the extension of similar studies based on data gathered from different cultural backgrounds.

REFERENCES

- Anderson, E. W., Fornell, W. C., and Lehmann D. R. "Customer Satisfaction, Market Share, and Profitability: Findings from Sweden," *Journal of Marketing* (58), 1994, pp. 53-66.

- Anderson, E. W. and Sullivan, M. W. "The Antecedents and Consequences of Customer Satisfaction for Firms," *Marketing Science* (12:2), 1993, pp. 125-143.
- Bearden, W. O. and Teel, J. E. "Selected Determinants of Customer Satisfaction and Complaint Reports," *Journal of Marketing Research* (20), 1983, pp. 21-28.
- Bolton, R. "A Dynamic Model of the Duration of the Customer's Relationship with a Continuous Service Provider: The Role of Satisfaction," *Marketing Science* (17:1), 1998, pp. 45-65.
- Carte, T. A. and Russell, C. J. "In Pursuit of Moderation: Nine Common Errors and Their Solutions," *MIS Quarterly* (27:3), 2003, pp. 479-501.
- Chin, J. P., Deihl, V. A., and Norman, K. L. "Development of an Instrument Measuring User Satisfaction of the Human-Computer Interface," *ACM Proceedings*, 1998, pp. 213-218.
- Cohen, J. and Cohen, P. *Applied Multiple Regression/Correlation Analysis for the Behavioral Sciences*, 2nd ed. Hillsdale, NJ: Erlbaum, 1983.
- Crosby, L. A. and Stephens, N. "Effects of Relationship Marketing on Satisfaction, Retention, and Prices in the Life Insurance Industry," *Journal of Marketing Research* (24), 1987, pp. 404-411.
- DeLone, W. H. and McLean, E. R. "A Confirmatory Factor Analysis of the End-User Computing Satisfaction Index," *MIS Quarterly* (18:4), 1992, pp. 453-462.
- Fornell, C. "A National Satisfaction Barometer: the Swedish Experience," *Journal of Marketing* (56:1), 1992, pp. 6-21.
- Frazier, G. L. "Inter-Organizational Exchange Behavior in Marketing Channels: A Broadened Perspective," *Journal of Marketing* (47), 1983, pp. 68-78.
- Gwinner, K. P. "Relational Benefits in Services Industries: The Customer's Perspective," *Journal of the Academy of Marketing Science* (26:2), 1998, pp. 101-114.
- Hofstede, G. *Culture's Consequences: International Differences in Work-Related Values*, Beverly Hills, CA: Sage Publications, 1980.
- Huang, K., Lee, Y., and Wang, R. *Quality Information and Knowledge*, Englewood Cliffs, New Jersey: Prentice-Hall, 1999.
- Jones, M. A. *Satisfaction and Repurchase Intentions in the Service Industry: The Moderating Influence of Switching Barriers*, Unpublished dissertation, University of Alabama, 1998.
- Jones, M. A., Mothersbaugh, D. L., and Beatty, S. E. "Why Customers Stay: Measuring the Underlying Dimensions of Services Switching Costs and Managing their Differential Strategic Outcomes," *Journal of Business Research* (55:6), 2002, pp. 441-450.
- Mittal, B. and Lassa, W. M. "Why Customers Switch? The Dynamics of Satisfaction Versus Loyalty," *Journal of Service Marketing* (12:3), 1998, pp. 177-194.
- Oliver, R. L. "A Cognitive Model of the Antecedents and Consequences of Satisfaction Decisions," *Journal of Marketing Research* (17:3), 1980, pp. 460-469.
- Ping, R. A. "The Effects of Satisfaction and Structure Constraints on Retailer Exiting, Voice, Loyalty, Opportunism and Neglect," *Journal of Marketing* (69), 1993, pp. 320-352.
- Porter, M. E. *Competitive Strategy*, Academic Press, New York, NY, 1980.
- Rai, A., Lang, S. S., and Welker, R. B. "Assessing the Validity of IS Success Models: An Empirical Test and Theoretical Analysis," *Information Systems Research* (13:1),

2002, pp. 50-70.

- Rusbult, C. E. and Farrell, D. "A Longitudinal Test of the Investment Model: The Impact on Job Satisfaction, Job Commitment, and Turnover of Variations in Rewards, Costs, Alternatives, and Investments," *Journal of Applied Psychology* (68:3), 1983, pp. 429-438.
- Rust R. T., and Zahorik, A. J. "Customer Satisfaction, Customer Retention and Market Share," *Journal of Retailing* (69), 1993, pp. 145-156.
- Rust, R. T., Zahorik, A. J. and Keiningham, T. L. *Service Marketing*, New York: HarperCollins, 1996.
- Sharma, N., and Patterson, P. G. "Switching Costs, Alternative Attractiveness and Experience as Moderators of Relationship Commitment in Professional, Consumer Services," *International Journal of Service Industry Management* (11:5), 2000, pp. 470-491.
- Shin, B, Higa, K, Sheng, O. and Ide, T. "Analyzing the Media Usage Behavior of Telewor Groups: A Contingency Approach," *IEEE Transactions on Systems, Man, and Cybernetics* (29:1), 1999, pp. 127-139.
- Singh, J. "Understanding the Structure of Consumers Satisfaction Evaluations of Service Delivery," *Journal of the Academy of Marketing Science* (19), 1991, pp. 223-244.
- Szymanski, D. M. and Henard, D. H. "Customer Satisfaction: A Meta-Analysis of the Empirical Evidence," *Journal of Academy of Marketing Science* (29:1), 2001, pp. 16-35.
- Tibaut, J. W. and Kelley, H. H. *The Social Psychology of Groups*, John Wiley and Sons, New York, NY, 1959.
- Yoo, B. and Donthu, N. "Developing a Scale to Measure the Perceived Quality of an Internet Shopping Site (SITEQUAL)," *Quarterly Journal of Electronic Commerce* (2:1), 2001, pp. 31-47.